

NODE=B190

 $\Lambda(2070) 3/2^+$  $J^P = \frac{3}{2}^+$  Status: \*

OMITTED FROM SUMMARY TABLE

 **$\Lambda(2070)$  POLE POSITION****REAL PART**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>2044±20</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

**-2×IMAGINARY PART**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>360±45</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

NODE=B190225

NODE=B190RE  
NODE=B190RENODE=B190IM  
NODE=B190IM

NODE=B190250

NODE=B190A01  
NODE=B190A01NODE=B190A00  
NODE=B190A00NODE=B190A02  
NODE=B190A02NODE=B190A03  
NODE=B190A03NODE=B190A04  
NODE=B190A04NODE=B190A05  
NODE=B190A05NODE=B190A06  
NODE=B190A06NODE=B190A07  
NODE=B190A07NODE=B190A08  
NODE=B190A08NODE=B190A09  
NODE=B190A09NODE=B190A10  
NODE=B190A10

NODE=B190M

NODE=B190M

 **$\Lambda(2070)$  POLE RESIDUES****Normalized residue in  $N\bar{K} \rightarrow \Lambda(2070) \rightarrow N\bar{K}$** 

MODULUS	PHASE (°)	DOCUMENT ID	TECN	COMMENT
<b>0.15±0.05</b>	<b>-37 ± 10</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

NODE=B190250

NODE=B190A01  
NODE=B190A01NODE=B190A00  
NODE=B190A00NODE=B190A02  
NODE=B190A02NODE=B190A03  
NODE=B190A03NODE=B190A04  
NODE=B190A04NODE=B190A05  
NODE=B190A05NODE=B190A06  
NODE=B190A06NODE=B190A07  
NODE=B190A07NODE=B190A08  
NODE=B190A08NODE=B190A09  
NODE=B190A09NODE=B190A10  
NODE=B190A10 **$\Lambda(2070)$  POLE RESIDUES****Normalized residue in  $N\bar{K} \rightarrow \Lambda(2070) \rightarrow \Sigma\pi$** 

MODULUS	PHASE (°)	DOCUMENT ID	TECN	COMMENT
<b>0.10±0.03</b>	<b>-47 ± 8</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

NODE=B190250

NODE=B190A01  
NODE=B190A01NODE=B190A00  
NODE=B190A00NODE=B190A02  
NODE=B190A02NODE=B190A03  
NODE=B190A03NODE=B190A04  
NODE=B190A04NODE=B190A05  
NODE=B190A05NODE=B190A06  
NODE=B190A06NODE=B190A07  
NODE=B190A07NODE=B190A08  
NODE=B190A08NODE=B190A09  
NODE=B190A09NODE=B190A10  
NODE=B190A10 **$\Lambda(2070)$  POLE RESIDUES****Normalized residue in  $N\bar{K} \rightarrow \Lambda(2070) \rightarrow \Xi K$** 

MODULUS	PHASE (°)	DOCUMENT ID	TECN	COMMENT
<b>0.11±0.03</b>	<b>0 ± 25</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

NODE=B190250

NODE=B190A01  
NODE=B190A01NODE=B190A00  
NODE=B190A00NODE=B190A02  
NODE=B190A02NODE=B190A03  
NODE=B190A03NODE=B190A04  
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NODE=B190A05NODE=B190A06  
NODE=B190A06NODE=B190A07  
NODE=B190A07NODE=B190A08  
NODE=B190A08NODE=B190A09  
NODE=B190A09NODE=B190A10  
NODE=B190A10 **$\Lambda(2070)$  MASS**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>2070±24</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

NODE=B190250

NODE=B190A01  
NODE=B190A01NODE=B190A00  
NODE=B190A00NODE=B190A02  
NODE=B190A02NODE=B190A03  
NODE=B190A03NODE=B190A04  
NODE=B190A04NODE=B190A05  
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NODE=B190A06NODE=B190A07  
NODE=B190A07NODE=B190A08  
NODE=B190A08NODE=B190A09  
NODE=B190A09NODE=B190A10  
NODE=B190A10

NODE=B190M

NODE=B190M

**$\Lambda(2070)$  WIDTH**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>370±50</b>	SARANTSEV 19	DPWA	$\bar{K} N$ multichannel

 **$\Lambda(2070)$  DECAY MODES**

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 N\bar{K}$	(12 ± 5) %
$\Gamma_2 \Sigma\pi$	( 7.0 ± 3.0) %
$\Gamma_3 \Xi K$	( 7.0 ± 3.0) %
$\Gamma_4 \Lambda\omega$ , S=1/2 , P-wave	( 7 ± 4) %
$\Gamma_5 \Lambda\omega$ , S=3/2 , P-wave	( 3.0 ± 2.0) %
$\Gamma_6 \Lambda\omega$ , S=3/2 , F-wave	( 1.0 ± 1.0) %
$\Gamma_7 \Sigma(1385)\pi$ , P-wave	(10 ± 5) %
$\Gamma_8 \Sigma(1385)\pi$ , F-wave	( 2.0 ± 2.0) %
$\Gamma_9 N\bar{K}^*(892)$ , S=1/2 , P-wave	(42 ± 8) %
$\Gamma_{10} N\bar{K}^*(892)$ , S=3/2 , P-wave	(14 ± 6) %
$\Gamma_{11} N\bar{K}^*(892)$ , S=3/2 , F-wave	(10 ± 6) %

 **$\Lambda(2070)$  BRANCHING RATIOS**

$\Gamma(N\bar{K})/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$
VALUE <b>0.12±0.05</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(\Sigma\pi)/\Gamma_{\text{total}}$	$\Gamma_2/\Gamma$
VALUE <b>0.07±0.03</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(\Xi K)/\Gamma_{\text{total}}$	$\Gamma_3/\Gamma$
VALUE <b>0.07±0.03</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(\Lambda\omega, S=1/2, P\text{-wave})/\Gamma_{\text{total}}$	$\Gamma_4/\Gamma$
VALUE <b>0.07±0.04</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(\Lambda\omega, S=3/2, P\text{-wave})/\Gamma_{\text{total}}$	$\Gamma_5/\Gamma$
VALUE <b>0.03±0.02</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(\Lambda\omega, S=3/2, F\text{-wave})/\Gamma_{\text{total}}$	$\Gamma_6/\Gamma$
VALUE <b>0.01±0.01</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(\Sigma(1385)\pi, P\text{-wave})/\Gamma_{\text{total}}$	$\Gamma_7/\Gamma$
VALUE <b>0.10±0.05</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(\Sigma(1385)\pi, F\text{-wave})/\Gamma_{\text{total}}$	$\Gamma_8/\Gamma$
VALUE <b>0.02±0.02</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(N\bar{K}^*(892), S=1/2, P\text{-wave})/\Gamma_{\text{total}}$	$\Gamma_9/\Gamma$
VALUE <b>0.42±0.08</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(N\bar{K}^*(892), S=3/2, P\text{-wave})/\Gamma_{\text{total}}$	$\Gamma_{10}/\Gamma$
VALUE <b>0.14±0.06</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel
$\Gamma(N\bar{K}^*(892), S=3/2, F\text{-wave})/\Gamma_{\text{total}}$	$\Gamma_{11}/\Gamma$
VALUE <b>0.10±0.06</b>	DOCUMENT ID SARANTSEV 19 TECN DPWA COMMENT $\bar{K} N$ multichannel

NODE=B190W

NODE=B190W

NODE=B190215;NODE=B190

DESIG=1

DESIG=2

DESIG=3

DESIG=4

DESIG=5

DESIG=6

DESIG=7

DESIG=8

DESIG=9

DESIG=10

DESIG=11

NODE=B190220

NODE=B190R01

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NODE=B190R05

NODE=B190R05

NODE=B190R06

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NODE=B190R07

NODE=B190R07

NODE=B190R08

NODE=B190R08

NODE=B190R09

NODE=B190R09

NODE=B190R10

NODE=B190R10

**A(2070) REFERENCES**

SARANTSEV 19 EPJ A55 180

A.V. Sarantsev *et al.*

(BONN, PNPI)

NODE=B190

REFID=59986

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